UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,831	07/01/2003	Paul E. Galick	01-2616A	3034

24114 7590 12/22/2005

LYONDELL CHEMICAL COMPANY
3801 WEST CHESTER PIKE
NEWTOWN SQUARE, PA 19073

EXAMINER	
BARKER, MICHAEL P	
ART UNIT	**PAPER NUMBER**
1626	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/611,831	GALICK ET AL.	
	Examiner	Art Unit	
	Michael P. Barker	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9.24.03
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-3 are pending in the instant application. No restriction is necessary, and **Claims 1-3** were thus examined on the merits.

Priority

This application does not claim benefit or priority to another application. Thus, the priority date is the filing date, July 1, 2003.

Information Disclosure Statement

The information disclosure statement(s) (IDS), filed September 24, 2003 has been considered. Please refer to Applicant's copy of the IDS, submitted herewith.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Nos. 5,962,699, issued October 5, 1999 and 6,042,698, issued March 28, 2000.

1. Determining the Scope and Contents of the Prior Art

U.S. Patent No. 5,962,699 (hereinafter, "the '699 patent") discusses decolorization in organic carbonates and states the source of decolorization as being related to colored impurities or by-products during synthesis or storage and handling of a given organic carbonate. (col. 1, lines 26-32). Further, the '699 patent discloses a method of decolorizing organic carbonates comprising contacting a colored organic carbonate with hydrogen peroxide under reaction conditions sufficient to reduce the color. (col. 1, lines 58-61).

U.S. Patent No. 6,042,698 (hereinafter, "the '698 patent") discusses the problems with conventional decolorization methods which utilize hydrogen peroxide. (col. 1, lines 14-22). As a solution to the problems associated with conventional decolorization, the '698 patent discloses a method for decolorizing an organic compound, isophorone, by exposing colored isophorone to UV radiation. (col. 1, lines 23-26).

2. Ascertaining the Differences Between the Prior Art and the Claims at Issue

The difference between the '699 patent and the claims at issue is the methodology by which the inventors decolor organic carbonates. The '699 patent inventors decolor organic carbonates through the conventional method of contacting a colored organic carbonate with hydrogen peroxide, whereas the claims at issue decolor organic carbonates via exposing the colored carbonates to UV radiation.

The difference between the '698 patent and the claims at issue is the organic compounds sought to be decolored. The '698 patent inventors apply their method of decoloring (i.e. exposing an organic compound to UV radiation) to isophorone, whereas the claims at issue apply the same method to organic carbonates.

3. Resolving the Level of Ordinary Skill in the Pertinent Art

Considering the '699 patent, which identifies the problem of colored organic carbonates and solves this problem by decoloring the organic carbonates, a person of ordinary skill in the art, when faced with the '698 patent, which discloses a method of decoloring isophorone using UV radiation to circumvent the problems associated with the conventional decolorization techniques used in the '699 patent, would be motivated to apply this method to other decolored organic compounds.

Minus a showing of nonobvious results, in light of the '699 and '698 patents, it would have been obvious to one of ordinary skill in the pertinent art to decolor organic carbonates, as suggested in the '699 patent, by exposing the organic compounds to UV radiation, as disclosed in the '698 patent.

4. Considering Objective Evidence Present in the Application Indicating Obviousness or Nonobviousness

There is no objective evidence present in the instant application indicating Applicant's claimed invention is nonobvious in light of the relevant prior art.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "The method of improving. . .". (**Claim 1**, line 1). There is insufficient antecedent basis for this limitation in the claim. Thus, **Claim 1** is rejected under 35 U.S.C. 112 as failing to particularly point out and distinctly claim the subject matter Applicant regards as his invention. This rejection can be overcome by using "A" in place of "The".

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the terms "time *sufficient* to improve. . ." in **Claim 1** is a relative term which renders the claim indefinite. The term "sufficient" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. This rejection can be overcome by including a more exact standard of time by which the exposed organic carbonate is improved.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Barker whose telephone number is (571) 272-4341. The examiner can normally be reached on Monday-Friday 8:00 AM- 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699. The unofficial fax phone for this group are (571) 273-8300.

When filing a FAX in Technology Center 1600, please indicate the Header (upper right) "Official" for papers that are to be entered into the file, and " Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Communication via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by applicant and should be addressed to [joseph.mckane@uspto.gov]. All Internet e-mail communications will be made of

record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is viable through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael P. Barker
Patent Examiner, AU 1626

KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER

(for)Joseph McKane
Supervisory Patent Examiner, AU 1626